

In the Specification:

Listed below are amended paragraphs of the Specification.

On page 34, the paragraph beginning on line 29:

C¹ FIG. 133 depicts cumulative condensable hydrocarbons ~~and water~~ as a function of temperature produced by heating a coal cube;

On page 35, the three paragraphs beginning on line 15 (as amended in the Preliminary Amendment):

C² FIG. 144 depicts percentage ethene to ethane produced from a coal formation as a function of heating rate in ~~an experimental field~~ a laboratory test;

FIG. 145 depicts product quality of fluids produced from a coal formation as a function of heating rate in ~~an experimental field~~ a laboratory test;

FIG. 146 depicts weight percentages of various fluids produced from a coal formation for various heating rates in ~~an experimental field~~ a laboratory test;

On page 107, the paragraph beginning on line 11:

C³ FIG. 23a illustrates a cross-sectional view of an embodiment of a centralizer ~~581e~~ 581 disposed on conductor 580. FIG. 23b illustrates a perspective view of the embodiment shown in FIG. 23a. Centralizer ~~581e~~ 581 may be made of any suitable electrically insulating material that may substantially withstand high voltage at high temperatures. Examples of such materials may be aluminum oxide and/or Macor. Discs 581d may maintain positions of centralizer ~~581e~~ 581 relative to conductor 580. Discs 581d may be metal discs welded to conductor 580. Discs 581d may be tack-welded to conductor 580. Centralizer ~~581e~~ 581 may substantially electrically insulate conductor 580 from conduit 582.

On page 271, the paragraph beginning on line 11 (as amended in the Preliminary Amendment):

A three-dimensional (3-D) simulation model was used to simulate an in situ conversion process for a tar sand formation. A heat injection rate was calculated using a separate numerical code (CFX; AEA Technology, Oxfordshire, UK). The heat injection rate was calculated at 500 watts per foot (1640 watts per meter). The 3-D simulation was based on a dilation-recompaction model for tar sands. A target zone thickness of 50 meters was used. Input data for the simulation were based on average reservoir properties of the Grosmont formation in northern Alberta, Canada as follows:

C⁴

- Depth of target zone = 280 meters;
- Thickness = 50 meters;
- Porosity = 0.27;
- Oil saturation = 0.84;
- Water saturation = 0.16;
- Permeability = 1000 millidarcy;
- Vertical permeability versus horizontal permeability = 0.1;
- Overburden = shale; and
- Base rock = wet carbonate.

Six component fluids were used based on fluids found in Athabasca tar sands. The six component fluids were: heavy fluid; light fluid; gas; water; pre-char; and char. The spacing between wells was set at 9.1 meters on a triangular pattern. Eleven horizontal heaters with a 300 m heater length were used with heat outputs set at the previously calculated value of 1640 watts per meter.
